

Work Order ID 91239

October-03-12 2:45:15 PM

91239

Page 1

Item ID: D6101-003

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Saddle Billet, 7075

Start Date: 03/10/2012 Start Qty: 60.00

60

Cust Item ID:

Required Date: 09/01/2013 Req'd Qty: 60.00

60

Customer:

Reference:

Approvals: Process Plan: MLJDate: 12-10-03 Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| Draw Nbr | Revision Nbr | | | | | | | | |
| D6101 | Rev B | | | | | | | | |
| 100 | | 0.00 | | | | | | | |
| *100* | PURCHASING | | | | | | | | |
| Purchasing | Memo | 0.00 | | | | | | | |
| Purchasing | Issue P/O: <u>18082</u> | | | | | | | | |
| | a) Description: Alluminum billet | | | | | | | | |
| | b) 7.875" x 6.250" x 2.00" thick | | | | | | | | |
| | c) Tolerance on all dimensions are +0.030"/-0.000" | | | | | | | | |
| | d) Grain direction along 7.875" length | | | | | | | | |
| | e) Material: 7075-T7351 (QQ-A-250/12) | | | | | | | | |
| | f) Material certification required | | | | | | | | |
| 110 | | 0.00 | | | | | | | |
| *110* | Receive & Inspect for Damage & Mat'l Certs | | | | | | | | |
| Packaging | Memo | 0.00 | | | | | | | |
| Packaging | Ensure material certification is attached | | | | | | | | |

CY 12/10/05 (60)

12/11/15 (60)

Work Order ID 91239

October-03-12 2:45:15 PM

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Page 2

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N900040100Setup Start ***NS1***

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Stop ***NS2***

Item Name: Saddle Billet, 7075

Start Date: 03/10/2012 Start Qty: 60.00

60

Cust Item ID:

Required Date: 09/01/2013 Req'd Qty: 60.00

60

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|----------------------|---------|---------------------|--------------|---------------|---------------|------------------|--|
| 120 *120* QC Quality Control | QC6- Inspect dimensions to drawing Memo Ensure Material certification comply to Dwg D6101 | 0.00 0.00 | | <i>onk 12/11/21</i> | | <i>60</i> | <i>0</i> | | <i>DAS 14 9-89</i> |
| 130 *130* Packaging Packaging | Identify as per dwg & Stock Location: <i>MAT42</i> Memo | 0.00 0.00 | | <i>FK- 12/11/20</i> | | <i>60</i> | <i>0</i> | | |
| 140 *140* QC Quality Control | QC21- Final Inspection - Work Order Release Memo | 0.00 0.00 | | | | | | | <i>12/11/22 JF</i> <i>MF 12-11-22</i> |

Picklist Print

October-03-12 2:45:19 PM

Page 1

Work Order ID: 91239

91239

Parent Item: D6101-003

D6101-003

Parent Item Name: Saddle Billet, 7075

Start Date: 03/10/2012

Required Date: 09/01/2013

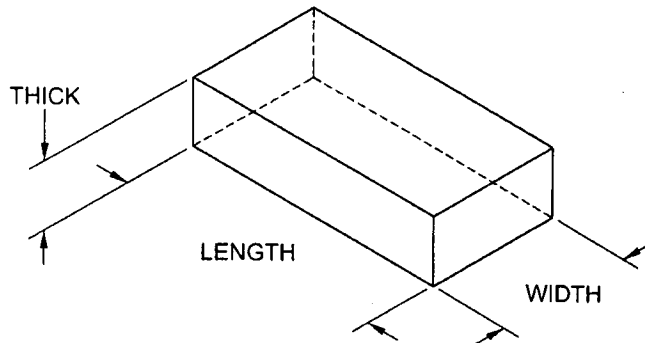
Start Qty: 60.00

Required Qty: 60.00

Comments: IPP A: 01.05.04New IssueEC

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| D6101-003P *D6101-003P* 7075-T7351 2X6.25X7.875 | | Purchased | No | | | 110 | Each | 0.0000 | 1 | 60 | ** | 12/11/12 (60) | |

SPECIFICATION CONTROL DRAWING



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

B ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

| Part No. | Alloy | Length | Width | Thick | Grain Direction |
|-----------|--------------------------|--------|-------|-------|--------------------|
| D6101-001 | 7075-T7351 (QQ-A-250/12) | 6.000 | 6.250 | 2.000 | Along 6.000 Length |
| D6101-003 | 7075-T7351 (QQ-A-250/12) | 7.875 | 6.250 | 2.000 | Along 7.875 Length |
| D6101-005 | 7075-T7351 (QQ-A-250/12) | 5.000 | 8.250 | 2.500 | Along 5.000 Length |
| D6101-007 | 7075-T7351 (QQ-A-250/12) | 7.750 | 8.250 | 2.500 | Along 7.750 Length |
| D6101-009 | 7075-T7351 (QQ-A-250/12) | 8.700 | 8.250 | 2.500 | Along 8.700 Length |
| D6101-011 | 7075-T7351 (QQ-A-250/12) | 9.700 | 8.250 | 2.500 | Along 9.700 Length |
| D6101-013 | 7075-T7351 (QQ-A-250/12) | 10.100 | 8.250 | 2.500 | Along 10.10 Length |
| D6101-015 | 7075-T7351 (QQ-A-250/12) | 9.450 | 6.250 | 2.500 | Along 9.450 Length |
| D6101-017 | 7075-T7351 (QQ-A-250/12) | 6.350 | 6.250 | 2.250 | Along 6.350 Length |
| | | | | | |
| | | | | | |

RELEASED
09/07/15/WJ

SHOP COPY
 RETURN TO
 ENGINEERING
 UNCONTROLLED COPY
 SUBJECT TO AMENDMENT
 WITHOUT NOTICE
 WORK ORDER
 NO. 91239 MCT
 12-10-03

| | | | |
|------------|-------------------------------------|---|----------|
| B | ADDED D6101-015/-017, ADD ASTM B209 | RF | 09.04.23 |
| A | NEW ISSUE | CP | 01.03.30 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | CP | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D6101 TITLE SADDLE BILLET, 7075 SCALE NTS REV. B SHEET 1 OF 1 COPYRIGHT © 2001 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small> | |
| DRAWN | RF | | |
| CHECKED | <i>[Signature]</i> | | |
| MFG. APPR. | <i>[Signature]</i> | | |
| APPROVED | <i>[Signature]</i> | | |
| DE APPR. | <i>[Signature]</i> | | |
| DATE | 09.04.23 | | |

**Castle Metals®**

A. M. Castle & Co.

BORDEREAU DE MARCHANDISES

Page 1 of 2

No de Formulaire d'Emballage / Shipment No:1543272

| | | | | | | | | | |
|---|--|--|--|---|--|--|--|--|--|
| Expédié de / Ship From: A. M. Castle & Co. (Canada) Inc. MONTREAL 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2 | | Vendu à / Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA | | Expédié à / Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN | | Livré à / Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA | | | |
| Date d'expédition / Date Shipped 15-NOV-2012 | | F.O.B. ORIGIN | | Modalités de transport / Freight Terms Prepaid | | Transporteur / Carrier MANITOULIN | | No du Bon de connaissance / BOL No 1543272-2 | |

| | |
|--|--|
| Détails d'expédition / Shipment Details | Destination finale / Final Destination Branch - MON |
|--|--|

| | | | | | | | | |
|--|--|--|-------------------------------|-----------------------------|---------------------|---|----------------------------------|-----------------------------------|
| N° de commande / Order No | | N° de ligne Line No | | N° d'article / Item No | | Description | | |
| 2520430 | | 1 | | 752237.MO | | 2.0000.PL.7075.T7351.ALUMINUM.USI.48.5000.144.5000 CUT RECTANGLE TO 6.25 IN () X 7.875 IN () SPECIFICATIONS: SHIP JANUARY 3RD ONLY QQ-A-250/12 | | |
| N° de bon de commande / Purchase Order No | | Nbre de pièces / Part Number | | Qté commandée / Ordered Qty | | Qté Facturée / Invoice Qty | | |
| 18082 | | YOUR ITEM NUMBER: D6101-003 | | 60.00 PCS | | 60.00 PCS | | |
| Détails / Details | | SHIP JANUARY 3RD ONLY QQ-A-250/12 | | | | | | |
| N° de livraison / Delivery No : | | Usine / Mill | No de coulée / Heat Number | Code méc / Mech Id | Pièce s / PCS | Largeur (Pouce)/ Width (IN) | Longueur (Pouce)/ Length (IN) | Qté expédiée/ Shipped Qty(LBS) |
| 118154126 | | MATERIALS TECHNOLOG Y SOLUTIONS | 651951 | | 60 | | | 609.6507 |

Ces marchandises/technologies sont sujettes aux règlements de l'Export Administration et du département d'état des Etats-Unis. Si elles ont été/sont exportées, elles doivent se conformer à ces règlements. Toute modification du contrat de transport contraire aux lois des États-Unis est interdite.

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.

Nous certifions par la présente que le matériel couvert par cette certification est conforme aux spécifications susmentionnées et aux exigences applicables pour le matériel, y compris toute spécification faisant partie de la description. Les rapports d'

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law prohibited.

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Castle Metals®

A. M. Castle & Co.

BORDEREAU DE MARCHANDISES

Page 2 of 2

essai sont archivés pour fins de consultation. Toute requête concernant du matériel défectueux sera rejetée à moins qu'elle ne soit faite par écrit à A. M. Castle & Co. dans les 60 jours suivant la livraison. Le matériel coupé sur mesure ou coupé par le client ne peut être retourné pour crédit.
We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description.
Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Ce matériel a été reçu et inspecté par
Reviewed by Authorized Castle Metals Representative:

Date:

Name:

I

CERTIFIED INSPECTION REPORT

Alcoa Inc.

DAVENPORT WORKS 4879 State Street Bettendorf, IA 52722

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet the applicable requirements described therein, including any specifications forming a part of the description and the samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.

The test report shall not be reproduced except in full, without the written approval of the Quality Department. No alteration, addition or other change is authorized to be made to this certificate. The recording of false, fictitious, or otherwise fraudulent statements or entries on this certificate by any recipient may be punished as a felony under applicable law.

Per

Rob Woodard

Rob Woodard

Director of Manufacturing Davenport Works

Teresa Thum

Teresa Thum

Quality Assurance Manager

Ship From: RIVERDALE, IA.

1452476

0

Ship Date

B.I. No.

Invoice No.

Alcoa No. Item

2012-10-12

7428448

00000

1000417340-4

DP-17340-4

P.O. No./Govt Contract No.

Customer

Alcoa Item

039050 Lot# 4

HADCO METAL TRADING CO41015519R21

Page 2 of 2

CQR: DP64164.34 -Specification Limits (cont.)

T7351 Elec. Cond. (EC) & MIN 38.0 PCT

Chemical Composition

| | SI | FE | CU | MN | MG | CR | ZN | TI | Other | Other |
|-----|------|------|-----|------|-----|------|-----|------|-------|-------|
| Max | 0.40 | 0.50 | 2.0 | 0.30 | 2.9 | 0.20 | 5.1 | 0.20 | 0.05 | 0.15 |
| Min | | | 1.2 | | 2.1 | 0.10 | 5.1 | | | |

Alloy 7075

Lot# 651951

- Mechanical, Physical, Metallography, Quantitative Results

REMAIN

| Temp | Dir | Test | UTS | TYS | ELAD |
|-------|--------------|------|------|------|------|
| | | | KSI | KSI | PCT |
| T7351 | Long Transv. | 3 | 72.2 | 61.6 | 10.7 |
| | | | 72.3 | 61.6 | 10.5 |
| | | | 72.1 | 61.4 | 10.7 |

T7351 Elect Cond & IACS 40.1 40.1 40.1 PCT

| Cast Number | Chemical - GES | SI | FE | CU | MN | MG | CR | ZN | TI |
|-------------|----------------|------|------|-----|------|-----|------|-----|------|
| H9043096 | Actuals | 0.07 | 0.28 | 1.6 | 0.04 | 2.5 | 0.19 | 5.6 | 0.02 |

This material was melted in the United States or a Qualifying Country [REF DEARS 225.872.11a1], it was manufactured in the United States

DAS
14
0-89 12/11/21

Castle Metals Mon

HEAT NUMBER 651951

MECHANICAL ID

ITEM CODE 752237 Bo

LOT NUMBER 2781933 MON

PO NUMBER 17268

RECEIPT DATE 11-13-12

SUPPLIER MTR

SPECIFICATION AMS-QQ-A-250/12

LCS -

COMMENT -

APPROVED g

Item 752237. Po Po 17268 2 pages

CERTIFIED INSPECTION REPORT

Alcoa Inc.

DAVENPORT WORKS 4879 State Street Bettendorf, IA 52722

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this report. This test report shall not be reproduced except in full, without the written approval of the Quality Department. Any addition or other change is authorized to be made to this certificate. The recording of false, fictitious, or otherwise fraudulent statements or entries on this certificate by any recipient may be punished as a felony under applicable law.

1242276
Ship Date 2012-10-12 B.L. No. 7428446 Invoice No. 80000 Alcoa No. Item 1000417340-4 DP-17340-4
P.O. No./Govt Contract No. 039050 Ln# 1 Customer Alcoa Item HADCO METAL TRADING CO41015519R21

Rob Woodall

Rob Woodall

Director of Manufacturing Davenport Works

Terence Tamm

Terence Tamm

Quality Assurance Manager

Page 1 of 2

Item Description
24.0 IN TK (+.055 - .055) X 48.5 IN W (+.1125 - .0000) X 144.5 IN LN (+.5 - 0.0) CAT D 154154 (N) A/T 7075-
T7351 RECTANGLE MILL FINISH, UST 3MM DEAD ZONE REQ'D BOTH SIDES,
SAWED. AMS-QQ-A-250/12 IS 2007 AMS-STD-
2154 IS 2010 EXT MKK AMS4018 REV J EKC MKK
ASTM208 REV 10 ASTM2084 REV 09 BSS7055
REV A EKC MKK UST158 REV H B621211 REV J
(MARKED) KRAFT PAPER INTERLEAVED
MAX GROSS SKID WT: 4500 LB QUAN TOL +/-
40 * UST CL A 1 YR CQR D164164 REV 34 CUST REQ 12-09-
28 *** W/E 12-10-13 ***

| Num | Package Ticket | Lot | Weight | Quantity | UOM | Inspector Check Numbers |
|-----|----------------|--------|--------|----------|-----|-------------------------|
| 1 | 458063 | 651951 | 1431 | 1 | PC | |
| 2 | 458065 | 651951 | 2860 | 2 | PC | |
| 3 | 458067 | 651951 | 2868 | 2 | PC | |
| | | | 7159 | 5 | | |

AS
14
2-89
only 12/11/21

Notes for CQR: D164164.34

THIS MATERIAL HAS BEEN ULTRASONICALLY INSPECTED FULLY IMME REION - TYPE 1.
PRODUCT PRODUCED TO THE REQUIREMENTS OF MIL-STD-2154 ALSO MEET THE REQUIREMENTS OF AMS-STD-2154. PRODUCT PRODUCED TO THE
REQUIREMENTS OF AMS-STD-2154 ALSO MEET THE REQUIREMENTS OF MIL-STD-2154.
PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF AMS-QQ-A-250/12 ALSO MEETS THE REQUIREMENTS OF AMS-STD-2154. PRODUCT PRODUCED TO THE
PRODUCED AND MARKED TO THE REQUIREMENTS OF QQ-A-250/12 ALSO MEETS THE REQUIREMENTS OF AMS-QQ-A-250/12.

CQR: D164164.34 -Specification Limits

| Impr | Dir | UTS | TYS | EL4D |
|-------|--------------|-----|------|------|
| T7351 | Long Transv. | KSI | KSI | PCT |
| | | Max | 68.8 | |
| | | Min | 57.0 | 6 |